

WHAT IS CLAIMED IS:

1. A method for sharing over-allocated bandwidth between service classes in a wireless network comprising:  
transmitting traffic for a first service class in  
5 excess of bandwidth allocated to the first service class using unused bandwidth allocated to a second class; and  
after transmitting traffic for a first service class in excess of bandwidth allocated to the first service class using unused bandwidth allocated to a second class,  
10 transmitting traffic for a third service class in unused bandwidth remaining in the second service class.
2. The method of Claim 1, wherein the third service class comprises a lower priority than the first  
15 service class.
3. The method of Claim 1, wherein the second service class comprises a lower priority than the first service class.  
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4. The method of Claim 1, wherein the second class comprises a lowest priority that has unused bandwidth.
5. The method of Claim 1, wherein the second class  
25 comprises non-bursty traffic flows.
6. The method of Claims 5, wherein the non-bursty service class comprises voice traffic.

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7. A system for sharing over-allocated bandwidth between service classes in a wireless network comprising:

means for transmitting traffic for a first service class in excess of bandwidth allocated to the first service class using unused bandwidth allocated to a  
5 second class;

means for, after transmitting traffic for a first service class in excess of bandwidth allocated to the first service class using unused bandwidth allocated to a  
10 second class, transmitting traffic for a third service class in unused bandwidth remaining in the second service class.

8. The system of Claim 7, wherein the third  
15 service class comprises a lower priority class of service (CoS) than the first service class.

9. The system of Claim 7, wherein the second service class comprises a lower priority CoS than the  
20 first service class.

10. The system of Claim 7, wherein the second class comprises the lowest priority CoS that has unused  
25 bandwidth.

11. The system of Claim 7, wherein the second class comprises a non-bursty CoS.

12. The system of Claims 11, wherein the non-bursty  
30 service class comprises voice traffic.

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13. A system for sharing over-allocated bandwidth between service classes in a wireless network comprising logic encoded in media, the logic operable to:

transmit traffic for a first service class in excess  
5 of bandwidth allocated to the first service class using unused bandwidth allocated to a second class; and

after transmitting traffic for a first service class in excess of bandwidth allocated to the first service class using unused bandwidth allocated to a second class,  
10 transmit traffic for a third service class in unused bandwidth remaining in the second service class.

14. The system of Claim 13, wherein the third service class comprises a lower priority class of service  
15 (CoS) than the first service class.

15. The system of Claim 13, wherein the second service class comprises a lower priority CoS than the first service class.

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16. The system of Claim 13, wherein the second class comprises the lowest priority CoS that has unused bandwidth.

25 17. The system of Claim 13, wherein the second class comprises a non-bursty CoS.

18. The system of Claims 17, wherein the non-bursty service class comprises voice traffic.

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transmitting traffic for a first service class in  
excess of bandwidth allocated to the first service class  
5 using unused bandwidth allocated to a second class; and

20. The method of Claim 19, wherein the third service class comprises a lower priority than the first service class.

20           22. The method of Claim 19, wherein the second  
class comprises a lowest priority that has unused  
bandwidth.

24. The method of Claims 23, wherein the non-bursty service class comprises voice traffic.

25. A method for sharing over-allocated bandwidth between service classes in a wireless network comprising:

transmitting expedited forwarding (EF) traffic in bandwidth allocated to EF traffic;

5       transmitting assured forwarding (AF) traffic in bandwidth allocated to AF traffic;

transmitting best effort (BE) traffic in bandwidth allocated to BE traffic;

10       transmitting voice traffic in bandwidth allocated to voice traffic;

transmitting AF traffic in excess of bandwidth allocated to AF traffic ("excess AF traffic") using unused bandwidth allocated to voice traffic ("excess voice bandwidth") if excess voice bandwidth is available;

15       transmitting excess AF traffic in excess bandwidth allocated to BE traffic ("excess BE bandwidth") if there is no excess voice bandwidth, and if excess BE bandwidth is available;

20       transmitting excess AF traffic in excess bandwidth allocated to EF traffic ("excess EF bandwidth") if there is no excess voice bandwidth and there is no excess BE bandwidth and if there is excess EF bandwidth;

25       transmitting BE traffic in excess of bandwidth allocated to BE traffic ("excess BE traffic") using excess voice bandwidth if excess voice bandwidth is available;

30       transmitting excess BE traffic in excess bandwidth allocated to AF traffic ("excess AF bandwidth") if there is no excess voice bandwidth and excess AF bandwidth is available;

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transmitting excess BE traffic in excess EF bandwidth if there is no excess voice bandwidth and there is no excess AF bandwidth and excess EF bandwidth is available;

5       transmitting EF traffic in excess of bandwidth allocated to BE traffic ("excess EF traffic") using excess voice bandwidth if excess voice bandwidth is available;

10       transmitting excess EF traffic in excess BE bandwidth if there is no excess voice bandwidth and excess BE bandwidth is available;

15       transmitting excess EF traffic in excess AF bandwidth if there is no excess voice bandwidth and there is no excess BE bandwidth and excess AF bandwidth is available.

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